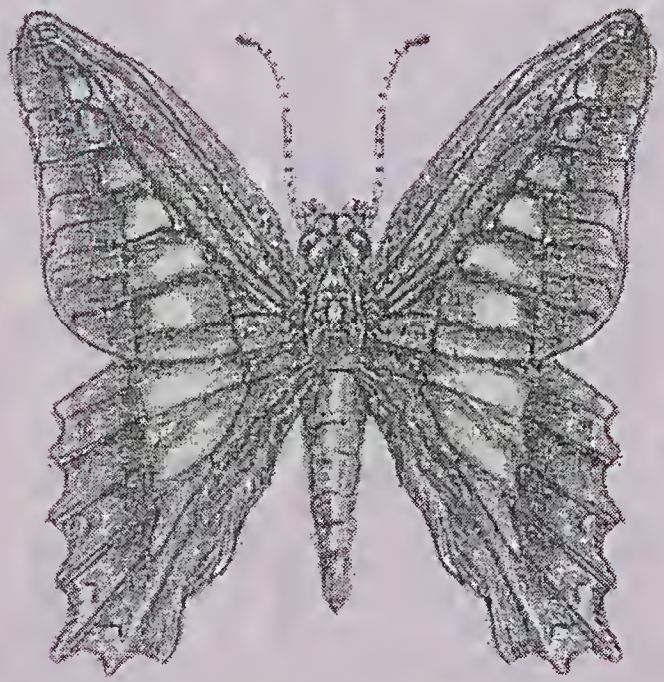
VICTORIAN ENTOMOLOGIST

VOL. 30 No. 1 FEBRUARY 2000

Print Post Approved PP 349018/00058 Price: $ 3.00



News Bulletin of The Entomological Society of Victoria Inc.

THE ENTOMOLOGICAL SOCIETY OF VICTORIA (Inc)

MEMBERSHIP

Any person with an interest in entomology shall be eligible for Ordinary membership. Members of the Society include professional, amateur and student entomologists, all of whom receive the Society's News Bulletin, the Victorian Entomologist.

OBJECTIVES

The aims of the Society are:

(a) to stimulate the scientific study and discussion of all aspects of entomology,
(b) to gather, disseminate and record knowledge of all identifiable Australian insect species,
(c) to compile a comprehensive list of all Victorian insect species,
(d) to bring together in a congenial but scientific atmosphere all persons interested in entomology.

MEETINGS

The Society's meetings are held at La Trobe University, 2nd Floor, Room 2.29, 215 Franklin Street, Melbourne (Opposite the Queen Victoria Market) Melway reference Map 2F B1 at 8 p.m. on the third Friday of even months, with the possible exception of the December meeting which may be held earlier. Lectures by guest speakers or members are a feature of many meetings at which there is ample opportunity for informal discussion between members with similar interests. Forums are also conducted by members on their own particular interest so that others may participate in discussions.

SUBSCRIPTIONS

Ordinary Member	$20.00
Country Member	$16.00 (Over 100 km from GPO Melbourne)
Student Member	$12.00
Associate Member	$ 5.00 (No News Bulletin)

No additional fee is payable for overseas posting by surface mail of the news bulletin. Associate Members, resident at the same address as, and being immediate relatives of an ordinary Member, do not automatically receive the Society's publications but in all other respects rank as ordinary Members.

Cover design by Alan Hyman.

Cover illustration of the Blue Triangle butterfly, *Graphium sarpedon* L. by Rhonda Millen.

MINUTES OF THE GENERAL MEETING, 10 DECEMBER 1999

Present: P. Carwardine, K. Dunn, I. Endersby, A. Kellehear, R. McMahon, C. Peterson, D. Stewart, J. Tinetti.

Visitors: L. Dunn, M. Kesavan.

The President opened the meeting at 8.30 pm.

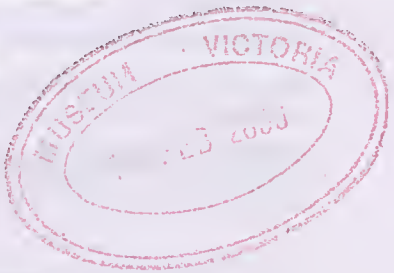
Apologies: D. Dobrosak, A.& E. Farnworth.

Minutes of the 22 October General Meeting [*Vic. Ent* 29(6): 101] were accepted subject to the deletion of C. Meehan as attending and the recording of C. Peterson as a member, not a visitor. (Endersby/Peterson). Minutes of the General Meeting of 20 August [Vic. Ent. 29(5): 81-82] were amended to recognise that B. Bainbridge and Dr. A-N. Duale were elected to membership. (Endersby/ McMahon)

Treasurer's Report: The Treasurer presented the financial statement:

Account Balances	General Account	$5,080
	Le Souëf Award Account	$3,426

Membership	Metropolitan	39
	Country	56
	Student	4
	Life	4
	Associate	5
	Total	108



L. Morey has been reinstated upon payment of 1999 subscription.

General Business;

- Science Talent Search Bursaries, sponsored by the Society , were awarded to:
  Rachel Loughnan Creative Writing "Rachel's Caterpillar"
  Stef Capogreco & Anne Flaherty Games "Ladybird Game"

- An excursion to the Ballarat region will be held on the last week in February or the first week of March 2000, subject to the availability of the Ballarat University staff.
- The President announced that the Le Souëf Award Committee had decided that the 1999 Award be presented to Hugh Bollam of Western Australia.
- C. Peterson expressed a vote of thanks for the organisation of the excursion to CSIRO facilities in October.

Speakers:

Kelvyn Dunn spoke on, and showed a half hour video of, the many tropical butterflies he encountered in northern Thailand during March and April of 1999. Most of the 30 or so species in the video were from Doi Inthanon National Park (Thailand's highest peak) and Doi Suthep N.P. near Chiang Mai. These included the spectacular, black and golden birdwings

(*Troides aeachus*), and other common rainforest species such as *Pachliopta aristolochiae*, *Graphium aristeus*, *Danaus genutia*, *Neptis* spp., *Tirumala limniace*, *Parantica aglea*, various oakblues, grass yellows, crows, and an uncommon Riodinine butterfly, *Abisara neophron*, the latter filmed settling on exposed roots and leaf litter in a hilltribe village. The video also showed males of *Papilio demoleus* and *Catopsilia pomona* feeding in distinct species groups at mud puddles, and an aggregation of banded awls (*Hasora* spp.) imbibing anal fluids on rocks in shade in jungle in late afternoon. The pierine, *Leptosia nina* was shown flying and settling to feed at weed flowers with *Appias libythea* in the residential area of Chiang Mai.

Kelvyn had identified many of the species from freeze frame views of the specimens. Points of interest were the high number of genera that were similar to those seen in Australia, the numerous examples of mimicry, and the sight of discrete species' groups drinking at water soaks.

Ian Endersby gave a brief talk on the ecology of alpine insects, noting the similarity of isolated mountain peaks in southeastern Australia to islands and the biogeographic consequences, and the various morphological, behavioural, physiological and phenological adaptations insects have made, driven by the climatic physical, and biological conditions of high altitudes.

The President thanked the speakers for their contributions.

Observations: It was noted that member Ross Field has published his studies of *Acrodipsas* in the Memoirs of the Museum of Victoria.

The President closed the meeting a 10.09 pm

Further Notes on some Western Australian Butterflies

Andrew A.E. Williams[1], Matthew R. Williams[2] and Alan J. Graham[3].

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Abstract

New distribution records, food plants and behavioural observations are recorded for 23 species of butterflies from south-western Western Australia.

Introduction

During 1997 and 1998, field trips were undertaken to North-West Cape, Bernier and Dorre Islands in Shark Bay, Esperance, the Goldfields and locally around Perth. Range extensions, new food plants and behavioural observations were recorded for 23 species of butterflies during this time.

A number of species not normally resident in the south-west (*Papilio demoleus sthenelus*, *Eurema smilax*, *Catopsilia pomona pomona* and *Acraea andromacha andromacha*) are recorded, most likely resulting from recent migration. Additional records from Kalgoorlie are the result of Alan Graham's observations in that area over several years. Voucher specimens have been lodged in the Insect Collection of the Department of Conservation and Land Management, Perth. Plant nomenclature follows Green 1985.

Observations and discussion

HESPERIIDAE

Trapezites argenteoornatus insula (Waterhouse)

T. a. insula has been recorded on Bernier and Dorre islands (Williams and Hall 1993, Williams *et al.* 1998). On Bernier Island in August 1998, we found larval shelters containing hatched pupal cases on both *Acanthocarpus preissii* and *Acanthocarpus robustus* (Dasypogonaceae). On the adjacent mainland at Quobba these two food plants are also utilized by *T. a. argenteoornatus* (Williams *et al.* 1997).

Motasingha dirphia (Hewitson)

M. dirphia is found in south-western Australia from Howatharra Hill Reserve, 30 km north-north-east of Geraldton (Moulds and Atkins 1986), south to Albany and east to Esperance and near Cocklebiddy. It usually occurs within 50 km of the coast (Dunn and Dunn 1991). There are however some isolated inland records from Cunderdin (Moulds and Atkins 1986),

Spargoville (Field 1987), Fraser Range (Dunn and Dunn 1991) and Mt Ragged in Cape Arid National Park (Williams *et al.* 1996). We have taken specimens at two additional inland localities. On 3 November 1996 four males were collected at Peak Charles National Park (32° 52'S 121° 10'E), hill-topping along a rocky ridge. On 20 October 1998 a male was obtained at Boolanelling Nature Reserve #22792 (32° 07'S 117° 45'E) in the Western Australian wheatbelt.

Antipodia dactyliota anaces (Waterhouse)
The only larval food plant recorded for *A. d. anaces* is *Gahnia lanigera* (Williams 1990). On 19 November 1996 we found the species breeding on *Gahnia australis* at Dryandra State Forest (32° 47'S 116° 58'E), where scattered clumps of the food plant were growing on laterite gravel slopes and ridges in Powderbark *Eucalyptus accedens* woodland. At Peak Charles National Park (32° 52'S 121° 10'E) the food plant is *Gahnia ancistrophylla*. Larvae were found in typical shelters on this food plant, which was common on sandy clay soils in the mallee/melaleuca shrublands.

Cephrenes augiades sperthias (Felder)
C. a. sperthias has extended its range southwards in recent years, undoubtedly as a result of the dispersal of ornamental palms. The species is now established in the coastal towns of Karratha, Geraldton, Perth, Mandurah, Dawesville, Busselton, Margaret River and Esperance (Hutchison 1983, 1988, 1989; Williams 1993). Only very recently has it appeared in Carnarvon (24° 53'S 113° 40'E). In December 1998 two second instar larvae were found on Bangalow Palms *Archontophoenix cunninghamiana* growing in a motel garden in the town. These larvae were successfully reared to adults. In the goldfields town of Kalgoorlie (30° 45'S 121° 28'E), the species was first seen in December 1996. It is now established there and appears regularly each summer from December to March. Its larval food plant is also *A. cunninghamiana*.

PAPILIONIDAE
Papilio demoleus sthenelus W.S. Maclcay
Around Kalgoorlie (30° 45'S 121° 28'E) the Chequered Swallowtail *P. d. sthenelus* is a regular though uncommon summer visitor. December 1995, however, proved to be an exceptional season, with the species being present in large numbers. In June 1997, Perth experienced unusually warm conditions as a result of strong northerly winds. Between 16 and 25 June, a number of Chequered Swallowtails were observed by MRW near the Department of Conservation and Land Management offices at Como. (At the time numbers of *Catopsilia pomona pomona* were also seen). Further *P. d. sthenelus* specimens have since been observed at Como on 15 & 16 March, and at Dunsborough (33° 36'S 115° 06'E) on 15 April 1999.

PIERIDAE
Catopsilia pomona pomona (Fabricius)
In Western Australia the Lemon Migrant *C. p. pomona* has an essentially northern distribution, being resident as far south as Carnarvon (Common and Waterhouse 1981). It has also been recorded further east at Warburton and Townsend Ridges in the Western Australian central deserts (Williams *et al.* 1996).
We now have a number of sporadic more southerly records for this species. At Kalbarri National Park (27° 42'S 114° 19'E) one was seen by AAEW on 2 September 1995, and in February 1996 a single specimen was sighted by AJG in Kalgoorlie (30° 45'S 121° 28'E). In June the following year, Perth experienced unusually warm conditions as a result of strong northerly winds. Between 16 and 25 June, four *C. p. pomona* were observed by MRW near the Department of Conservation and Land Management offices at Como. A voucher specimen was collected on 17 June. On 18 September 1997, another individual was observed

at the same locality. This specimen, which was in fresh condition, may have been a June immigrant that had over-wintered, or may have resulted from local breeding. A number of other observers (Robert Powell, Jan Taylor and Hugh Bollam) have also reported isolated observations of lemon migrants around Perth over the past two years. On 5 October 1997 two individuals were observed by AAEW at Geraldton (28° 46'S 114° 37'E). Morton (1999) also reported observing *Catopsilia* sp. in Geraldton (in January 1998), but tentatively identified these as *C. pyranthe*.

Eurema smilax (Donovan)
In Western Australia *E. smilax* is mainly confined to the north and east of the State. A single specimen was taken at Manjedal Camp (32° 17'S 116° 03'E) 40 km SSE of Perth, on 27 February 1999. Around Kalgoorlie (30° 45'S 121° 28'E) it is present in small numbers from November to May. The local food plant is *Senna artemisiodes*.

Belenois java teutonia (Fabricius)
B. j. teutonia has previously been recorded from Bernier Island (see Dunn and Dunn 1991, Williams and Hall 1993). In August 1998 larvae at various stages of development were found on *Capparis spinosa* shrubs growing on exposed travertine along the western side of the island. Many of the food plants were almost stripped of their leaves, indicating previous larval activity. This confirms *B. j. teutonia* as a breeding species on the island. Around Kalgoorlie (30° 45'S 121° 28'E) in the Western Australian goldfields the species is not common. Over the past few years adults have been seen annually, but only in October.

Pieris rapae rapae (Linaeus)
In the Western Australian goldfields, the Cabbage White *P. r. rapae* is very common within the towns of Kalgoorlie (30° 45'S 121° 28'E), Coolgardie (30° 57'S 121° 09'E) and Menzies (29° 42'S 121° 02'E). However it is rarely seen in "the bush" away from the towns. The species flies throughout the year. In August 1999 it was also plentiful in the coastal town of Kalbarri (27° 42'S 114° 12'E), 125 km north-north-west of Geraldton.

NYMPHALIDAE
Danaus plexippus plexippus (Linnaeus)
Williams (1997) records fourteen species of butterfly from Garden Island (32° 12'S 115° 40'E), among them the Lesser Wanderer *Danaus chrysippus petilia*. In 1997 and 1998 the Wanderer *Danaus plexippus plexippus* was observed on several occasions during spring and summer. Its introduced food plant *Gomphocarpus fruticosus* (Asclepiadaceae) occurs near the sewerage treatment ponds on the island, and at Beacon Head (Keighery 1998). Breeding was confirmed in April 1997 when larvae were found on *G. fruticosus* growing in a sports oval drainage sump (Wykes *et al.* 1999). *D. p. plexippus* also occurs in Kalgoorlie (30° 45'S 121° 28'E), although it is not common. Specimens have been seen and taken from November to March.

Vanessa kershawi (McCoy)
In August 1998 *V. kershawi* was recorded on both Bernier and Dorre islands. The species was previously known from Dorre Island (Williams *et al.* 1998), but not from Bernier Island.

Vanessa itea (Fabricius)
There are few documented records of *V. itea* in the goldfields and central deserts of Western Australia. Observations over the past few years, however, have shown the species to be moderately common around Kalgoorlie (30° 45'S 121° 28'E). At Lake Douglas (30° 50'S 121° 23'E) and Comet Vale (29° 57'S 121° 07'E) individuals have also been seen stopping to feed briefly on small flowering plants. Native pellitory, *Parietaria debilis*, which occurs

across much of southern Australia, is the most likely food plant. In early October 1992 *V. itea* was also observed in the Great Victoria Desert, 130 km east-north-east of Laverton (28° 00'S 124° 00'E). A single butterfly was seen by Magnus Peterson on the crest of a large red sand ridge (Robert Powell, Department of Conservation and Land Management, *pers. comm.*).

Acraea andromacha andromacha (Fabricius)
On 22nd October 1997 a single Glasswing *A. a. andromacha* was observed at close quarters flying over dense tall heath at Leeman (29° 57'S 114° 59'E), a coastal settlement 225 km north of Perth. Attempts to secure the specimen were unsuccessful. More recently (23rd August 1999) another individual was observed and collected in the coastal town of Kalbarri (27° 42'S 114° 12'E) 125 km north-north-west of Geraldton. Although *A. a. andromacha* is a resident species in north-western Australia (Common and Waterhouse 1981, Dunn and Dunn 1991, Williams *et al.* 1993), individuals will sometimes migrate well outside their usual range. Williams (1996) has discussed vagrant appearances in south-western Australia, the most recent example being a specimen from Bungalbin Hill, 100 km north-north-west of Southern Cross. Kalbarri lies some 650 km, and Leeman 900 km south of the nearest resident population at Exmouth. In the light of earlier records its appearances this far south are not entirely unexpected.

LYCAENIDAE
Ogyris oroetes apiculata Quick
A single male specimen was hatched from a pupa found in January 1983 under the loose bark on a *Eucalyptus transcontinentalis* tree carrying the mistletoe *Amyema miquelii*. Free flying specimens have not been caught close to Kalgoorlie, so it is probably not common there. The species is more plentiful 100 km north of Kalgoorlie near Lake Goongarrie (29° 55'S 121° 10'E).

Jalmenus icilius Hewitson
In the Western Australian goldfields *J. icilius* has previously been recorded from around Kalgoorlie (Graham and Moulds 1988), and further east from Queen Victoria Spring in the Great Victoria Desert (Williams *et al.* 1996). On 26 October 1995 we recorded the species on Mount Jackson Station 92 km north of Bullfinch (30° 18' 20"S 119° 01' 08"E), where adults were active around a number of mature *Senna artemisiodes*. On a trip to Kalgoorlie in late October 1997, we observed a *J. icilius* colony near Lake Douglas (30° 50'S 121° 23'E) where adults were also active around *S. artemisiodes* (DC.) Randell (formerly *Cassia nemophila* Cunn. ex Vogel). Pupae, attended by *Iridomyrmex* sp. ants, were remarkably abundant, attached to the phyllodes and stems of the food plants. Butterflies have been seen flying at this site in April and October/November annually since 1994 (AJG *pers. obs*).
Specimens tentatively identified as *J. icilius* were also collected at three sites north of Kalgoorlie in November 1998. On 10 November one specimen was taken 9.0 km north-east of Comet Vale siding (29° 53'S 121° 11'E). On 12 November, four specimens were collected at an abandoned minesite, on Yundaga Road, 6.0 km east of the Kalgoorlie-Meekatharra Road (29° 47' S 121° 07'E). On the same day, another single specimen was taken near Pothole Dam (29° 34'S 121° 11'E), 20 km north-east of Menzies beside the Kalgoorlie-Meekatharra Road. These additional localities add to other isolated records of this species north of Kalgoorlie.

Jalmenus aridus Graham and Moulds
The Inland Hairstreak *J. aridus* was first discovered by Alan Graham near Kalgoorlie in 1983 (see Graham and Moulds 1988). Potentially it must still be ranked as one of Australia's most endangered butterflies. Up until 1992 the only known colony inhabited a single *Acacia tetragonophylla* shrub where *Froggattella kirbii* ants attended the *J. aridus* larvae. The site

was beside a shallow gully part way up a north-facing hillside overlooking Lake Douglas. In 1993 the *F. kirbii* ants disappeared and were replaced by an equivalent-sized totally black ant. The butterflies also abandoned the site. Careful searches were therefore made in the area for other colonies of *F. kirbii* ants which might harbour lycaenid larvae. In 1993/4 several locations were identified as prospective breeding areas, based on the presence of *F. kirbii* colonies in association with *A. teragonophylla* and flying adults. In April 1994 butterflies were also seen flying around *Senna artemisiodes* (DC.) Randell shrubs (formerly *Cassia nemophila* Cunn. ex Vogel), and after careful examination larvae were found on these plants. They fed on the phyllodes and flowers, and were attended by *F. kirbii* ants. As at the original site the larvae fed during the day. On occasion they were observed going underground in the late afternoon accompanied by the ants. Pupae however were not located. (They do not it seems, pupate on the phyllodes and stems of the food plant, as has been found with *J. icilius* at this locality). Adult *J. aridus* have been taken in April and October annually since 1995.

Candalides cyprotus cyprotus (Olliff)
A single specimen was collected from a hilltop near the south-east corner of Lake Moriaty (29° 51'S 121° 12'E), approximately 13 km north-east of Comet Vale siding.

Candalides hyacinthinus simplex (Tepper)
This species was common at North-West Cape in late October 1997. Butterflies were particularly plentiful in the dunes behind Bundegi boat ramp (21° 49'S 114° 09'E) where females were observed laying eggs on the flower buds of *Cassytha aurea* var. *aurea*.

Nacaduba biocellata biocellata (C. and R. Felder).
N. b. biocellata was recorded from both Bernier Island (24° 48'S 113° 09'E) and Dorre Island (25° 06'S 113° 06'E) in August 1998. On Bernier Island butterflies were collected around early-flowering *Acacia ligulata/rostellifera* complex shrubs in the vicinity of Hospital Bay. On Dorre Island the species was found on the plateau above Quoin Bluff.

Theclinesthes albocincta (Waterhouse)
Grund (1996) suggested that in north-western Australia *T. albocincta* utilizes *Adriana tomentosa* as a food plant, his identification based on eggs found on dried herbaria material. He was later able to confirm its use by finding larvae on this food plant at Cable Beach, Broome (Grund 1998). In late October 1997 we also found *T. albocincta* breeding on *Adriana tomentosa* var. *tomentosa* near Vlaming Head Lighthouse (21° 48'S 114° 06'E), North-West Cape. Grund (1998) reported seeing *T. albocincta* in large numbers about the same time near Coral Bay where *Adriana tomentosa* was common.

Theclinesthes hesperia littoralis Sibatani and Grund
T. h. littoralis is restricted to the coastal area of southern Western Australia, being known from Esperance (Common and Waterhouse 1981), Cape Le Grand National Park (Field 1990) and from the Albany area (Grund 1996 - identification based on eggs found on dried herbaria material of *Adriana quadripartita*). Common and Waterhouse (1981) also suggest that the larvae probably feed on this food plant. In mid November 1998 we found several larvae on *Adriana quadripartita* at Bandy Creek (33° 49'S 121° 56'E), just east of Esperance, thus confirming the food plant's identity.

Theclinesthes serpentata serpentata (Herrich-Schaffer)
In August 1998 *T. s. serpentata* was recorded on both Bernier Island (24° 48'S 113° 09'E) and Dorre Island (25° 06'S 113° 06'E). On Bernier it was found at Red Cliff Bay and Hospital Bay, where butterflies were almost always seen in the vicinity of *Rhagodia preissii* subsp. *obovata* which is undoubtably the food plant. On Dorre *T. s. serpentata* was collected near

Guano Point and on the central plateau south of White Beach. Near Kalgoorlie in the Western Australian goldfields, *T. s. serpentata* is very common around salt lakes from September to May. It also flies at other times of the year.

Zizina labradus labradus (Godart)
In August 1998 we found no evidence of this species on either Bernier or Dorre islands. Interestingly, in September 1992 the species was common on Bernier Island at Boulder Point (Williams and Hall 1993).

Acknowledgements

We are grateful to Sally Claymore of the Department of Conservation and Land Management for identification of plant specimens from Bernier and Dorre islands. Ray Cranfield and Sue Patrick of the Western Australian Herbarium kindly identified *Adriana tomentosa* specimens from Vlaming Head, and *Gahnia australis* and *G. ancistrophylla* specimens from Dryandra and Peak Charles National Park. Plant voucher specimens are lodged in the Western Australian Herbarium collection.

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List of Butterflies from Organ Pipes National Park, Victoria

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and

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Introduction

Only ten butterfly species are recorded from Organ Pipes National Park. This park is an area of regenerated bushlands, and is now regarded as Australia's first example of successful plant community restoration program using solely indigenous species. Seemingly few butterflies have naturally recolonised over the last 25 years, and this insect group, because they are well known, can be used as faunal community indicators - a yardstick for other insect groups (New 1991). We believe that a selective butterfly re-introduction program may be required given the history of this reserve and the paucity of species recorded. Similar programs have been attempted in other depleted reserves in Melbourne (Braby 1991).

Park History

The Organ Pipes National Park is located about 25 km west of Melbourne along Jacksons Creek. It is situated in the basalt Keilor plains region of Victoria, and lies about 8 km beyond Keilor, a short distance off the Calder Highway.

A cleared and weed infested gully, watered by a polluted stream and surrounded by grazing land seemed a surprising area to establish a National Park. However, the gully contained unusual geological formations, which included the 22 metre high basalt columns known as Organ Pipes. In 1972, at the time of reservation, the area retained remnants of the original flora, but no fewer than 24 species of noxious weeds covered 90 percent of the area (Fairley 1982). The main ones were Spanish Artichoke Thistle and African Boxthorn (Kemp and Irvine 1993). The latter was introduced by early settlers in the 1830s to establish hedges, after they had cleared the native trees for cereal pastures, and 'beautified' the remaining area with exotics such as cedars, oaks and willows. The effect on the native flora and fauna of the Keilor plains was devastating. The last Aborigines were seen in 1851, the time of the gold-rushes, and the region continued as grazing land until the late 1960s (Fairley 1982).

The Revegetation Program

A habitat restoration program commenced in 1973. This initially involved weed removal and replanting of indigenous vegetation. Examination of the remnant vegetation, historical records, and extant native vegetation in nearby areas led to the establishment of several planting zones based on soil type, drainage and aspect (Kemp & Irvine 1993). Revegetation was achieved from existing plants within the park or from seeds collected from nearby areas. This successful work was largely undertaken by a group of volunteers called 'Friends of Organ Pipes' (FOOP). Kemp and Irvine (1993) commented that the park has now begun to resemble descriptions of the area given by early settlers.

Species List and Comments

Butterflies were recorded on five of six visits between November and March, and the list below comprises those species found without determined or systematic searching. No doubt, continued surveys will add further records that were missed. Observation dates were: 9 Nov. 1997, 13 Dec. 1997, 28 Feb. 1998, 28 Jan 1999, and 4 Nov. 1999 (none was recorded on the autumn visit of 26 March 1998). Survey for butterflies was mainly undertaken by D. Dobrosak who made two additional visits, but others including, P. Carwardine, A. Dobrosak, K.L. Dunn, I. Endersby, and D. Stewart who attended the Society's formal excursions also contributed observations. Scientific Names are in accordance with Nielsen *et al.* (1996) and common names are in accordance with Braby *et al* (1997).

Species recorded	Month encountered in Park	Regular seasonal appearance in general area of northern Melbourne (Dunn & Dunn database)
Ocybadistes walkeri, Green Grass-dart	Feb	Sept-May
Dispar compacta, Barred Skipper	Feb	Jan-Mar
Belenois java, Caper White	Nov	Oct-Dec
Pieris rapae, Cabbage White	Dec	Aug-May
Vanessa kershawi, Australian Painted Lady	Nov	Aug-Apr
V. itea, Yellow Admiral	Dec, Feb	Aug-May
Heteronympha merope, Common Brown	Dec, Feb	Oct-May
Lucia limbaria, Grassland Copper	Dec, Jan	Sept-Apr
Theclinesthes serpentata, Salt-bush Blue	Feb	Oct-May
Zizina labradus, Common Grass-blue	Dec, Nov	Aug-May

Of the ten species listed, *Pieris rapae* (Dunn & Dunn 1991) and *Ocybadistes walkeri* (Crosby and Dunn 1989) are recent introductions to the Melbourne area. All except *Belenois java* and *P. rapae* most likely breed in the park either regularly or periodically.

One grassland species, *Lucia limbaria*, is rare in central Victoria (Crosby & Quick 1996) and, significantly, was earlier listed by Braby (1991) as a species in decline in the environs of Melbourne. The larva is ant-tended and feeds on the wood-sorrel, *Oxalis perennans* (Grund 1996) which occurs in the park (Kemp *et al.* 1992). To date, only two adults have been encountered. A female was observed by K.L. Dunn on 13 December 1997 (Dobrosak 1998), and another female was later collected by D. Dobrosak on the north facing grassy escarpment on 28 January 1999. Its presence in the park is very encouraging, and it is hoped that the population may enlarge in time.

The Butterfly Fauna and Potential for Improvement

The original butterfly fauna (prior to 1830) was never recorded, but it can be estimated from other areas. Our list largely involves those species which may have recolonised in recent years or have once again become common. Our list, however, appears lacking alongside the 28 recorded from La Trobe University (Braby 1989), and also when compared with the circa 66 known to occur within about a 40 km radius of Melbourne (*fide* Braby 1989). Sadly, it does compare well with the 11 species recorded from an inner suburban (Malvern) residential garden (Carwardine 1993).

Since many larval hosts are re-established, we suggest a butterfly re-introduction program could be attempted by interested volunteers. Braby (1991) detailed the successful

introduction of a skipper to Gresswell forest near La Trobe University, by a group of university researchers and school children in 1988. Possible trial charismatic species might include the Eltham copper and the Ictinus blue, both of which now very rare in Victoria and would be benefited by supplementary colonies. For these two species it would be necessary to survey for, and if required, re-introduce the attendant ants. These two selections are given further discussion herein.

Other species can be expected in the park seasonally and do not require human-aided release. Although not recorded on our visits, *Junonia villida* is without doubt present at times, and spasmodic migratory species such as *Eurema smilax* and *Danaus chrysippus* could pass through in suitable seasons. Familiar woodland butterflies such as *Taractrocera papyria*, *Lampides boeticus*, *Theclinesthes miskini*, *Nacaduba biocellata*, *Delias* spp. and others will probably appear in time, if not already present in low numbers and, hence, overlooked by us. Habitat isolation, created by residential suburbs, may impede or prevent re-colonisation by some sedentary satyrines, explaining the apparent absence of *Geitoneura* spp. for example. We have observed that this genus is one of the first to vanish in severely disturbed or modified habitat and may need to be re-established.

Although some larval hosts remained, and others have since been replanted, some highly specialised species which use these will never return without re-introduction. One such example might include *Ogyris abrota*, the mistletoe host of which is in the park (Kemp *et al.* 1992). Even if a remnant population still remains undetected in the Park, or the species subsequently re-colonises, it may be many years before sufficient hosts are available to support a large population. Regulated seeding of mistletoes could assist this species.

In the 1920s, the Keilor region supported one or more populations of Eltham coppers (*Paralucia pyrodiscus lucida*) (Braby *et al.* 1992). Hence, this very rare lycaenid may have occurred in the Organ Pipes National Park or close by, and is arguably part of the fauna of the early 1800s. Given its likely former presence in the region, and its now endangered status, we opine for establishing a DNRE approved colony from Eltham stock, provided this does not compromise the viability of the Eltham colony.

Moreover, the Ictinus blue (*Jalmenus ictinus*) is now similarly rare in Victoria, and was last seen in Keilor in 1923. Other historic sites nearby with the year they were last observed include Sunbury (1962), Bacchus Marsh (before 1924), Melton Gorge (1951), Broadmeadows (1921) and Brighton (1921) (Dunn & Dunn Butterfly database). These old sites are almost certainly extirpated. However, Burns (1989) reported an apparently new colony discovered in 1975 near Sunbury, which he speculated may have been along Jacksons Creek, and also his chance find 'west of Werribee,' at Lee Bridge, Balliang (J. Burns pers. comm. 1989). Both colonies may still be extant, and are the closest stock from which to replenish the national park.

Acknowledgements
We thank the Department of Natural Resources and Environment and Parks Victoria for permission to survey the National Park. Butterflies were collected by members of the Entomological Society of Victoria under DNRE research permits (NP 978/103 and 10000324).

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AUTHOR INDEX TO VOLUME 29 (1999) OF THE *VICTORIAN ENTOMOLOGIST*

Compiled by D. Dobrosak

1999 WINNER OF ZOO LE SOUËF MEMORIAL AWARD

Mr Hugh Bollam is the 1999 winner of the Zoo Le Souëf Memorial Award

Mr Bollam has been studying butterflies in Western Australia since the 1970s. A summary of His contributions to entomology include the following:

- Co-discovery and subsequent description of *Jalmenus notocrucifer*
- Substantial assistance as a volunteer to the W.A. Department of Conservation and Land Management on field surveys to determine the life history and distribution of species including *Ogyris otanes* and *Trapezities atkinsi.*
- Assistance to Andrew Atkins of University of Newcastle and Mr. Andrew Williams and Mr Matthew Williams of CALM in researching the life history of western Australian butterflies including *Herimosa albovenata, Trapeites argenteoornatus, Trapezites atkinsi, Mesodina hayi, Ogyris otanes* and *Ogyris idmo idmo*
- Assistance to Dr. Ross Field of Museum Victoria in researching the life history of *Ogyris idmo idmo*
- Assistance to Prof. Alan Graham of the Curtin University School of Mines in researching the life history of *Neolucia agricola.*

The Zoo Le Souëf Award Committee congratulates Mr Hugh Bollam on his achievements and contributions to entomology.

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Friday 18 February General Meeting
Neil Archbold will present a talk on:
'The fossil history of insects - evolution, gaps in the record and extinctions'

At the Society's meeting room at La Trobe University, 2nd Floor, Room 2.29, 215 Franklin Street, Melbourne (Opposite the Queen Victoria Market near Queen Street)
Melway reference Map 2F B1

Friday 17 March Council Meeting

ISSN 0310 - 6780